

**California Energy Commission
RENEWABLE ENERGY PROGRAM
Summary of Activities
January 1, 2006 – March 31, 2006**

RENEWABLE ENERGY PROGRAM

The Renewable Energy Program's (REP) goal is to achieve a self-sustaining renewable energy supply for California.

Renewables Portfolio Standard Program

The Renewables Portfolio Standard program (RPS) sets goals that help inform the policies of the other programs in the REP.

Statutes require retail sellers to increase the renewable content of their electricity sales by at least 1 percent per year, with a goal of serving 20 percent of the state's retail electricity sales with renewables by 2017. California policy accelerates the target to 2010 and the Governor expanded the goal to achieving 33 percent renewables by 2020 for both investor-owned utilities and municipal utilities.

Renewable generators that win a contract through an investor-owned utility's competitive solicitation may be eligible for Supplemental Energy Payments (SEPs) from the Energy Commission. Eligible new or repowered facilities priced above the market price referent (MPR) may apply for SEPs from the Energy Commission to pay the difference between the contract price and the MPR. The Energy Commission may set a cap on the amount of SEPs it issues.

- This quarter, Pacific Gas & Electric (PG&E) and San Diego Gas & Electric (SDG&E) continued to negotiate contracts with shortlisted bidders from their 2004 RPS competitive solicitations.
- PG&E, SDG&E, and Southern California Edison (SCE) continued to evaluate bids from their 2005 RPS solicitations.
- Recent procurements: PG&E concluded negotiations from its 2004 RPS solicitation with the filing of Advice Letter 2797-E requesting CPUC approval of a 20 year contract with a new 120 MW geothermal facility. The Power Purchase Agreement was priced above the 2004 Market Price Referent (2004 MPR) and, consequently, the developer will apply for supplemental energy payments from the Energy Commission to cover the eligible costs above the 2004 MPR.
- The Energy Commission adopted the *Renewables Portfolio Standard Procurement Verification Report (Verification Report)*. The *Verification Report* was developed with substantial public input, including holding a December 7, 2005 workshop on a staff draft, and the Committee Draft was adopted with errata at the February 1, 2006, Business Meeting. The report verifies RPS procurement for the 2004 calendar year and includes data from 2001 through 2004, where applicable. This report provides data on the investor-owned utilities' (IOUs) progress toward meeting RPS procurement targets and is intended to assist the CPUC in its determination of the IOUs' compliance with the RPS. The Energy Commission intends to develop the *Verification Report* annually using data from its RPS accounting system.
- The Energy Commission made available a Consultant Report, *Building a "Margin of Safety" Into Renewable Energy Procurements: A Review of Experience with Contract Failure* (Publication No. CEC-300-2006-004) on January 11, 2006. The report summarizes experience with renewable energy contracts executed with investor-owned utilities, with publicly owned utilities, and as a result of government incentive auctions, focusing on the degree to which such contracts yield on-line and on-schedule renewable energy projects.

Western Renewable Energy Generation Information System (WREGIS)

The Energy Commission is working with the Western Governors' Association, state and provincial representatives, and renewable energy market participants to design and implement an accounting system to verify compliance with California's RPS by retail sellers. WREGIS, a regional renewable energy tracking and registry system, will provide WREGIS Certificates to support verification of compliance with regulatory and voluntary renewable energy programs in the Western Interconnect.

- The Energy Commission continues to develop details of the contract with the Western Electricity Coordinating Council (WECC) as the institutional home of the WREGIS.
- There have been 10 addenda issued to the RFP for the WREGIS software and operations and maintenance contract.
- Final Proposals were submitted on February 21, 2006.
- The bid process was changed via an addendum issued by the Department of General Services because all Final Proposals received contained material deviations from the RFP requirements. The Final Proposals were declared *Second Draft Proposals* per Section II.3.8 of the RFP. New Final Proposals are to be submitted and revised submission dates will be released in the near future.
- The Energy Commission estimates that WREGIS will be operational in mid 2007.
- WREGIS disbursements are reported under its funding source, the Consumer Education Program.

Existing Renewable Facilities Program (ERFP)

This program provides production incentives of up to 1.0 cent per kilowatt-hour to biomass, solar thermal, and wind facilities. Incentive payments are tied to market prices, with no payments made if the market price is above a predetermined target price.

- Payments for January 2006 generation which would have normally been made during the first quarter were delayed slightly and will therefore show as expenditures during the 2nd quarter of 2006.
- During this period, about \$2.5 million in payments were made for 539 GWhs of generation for November and December 2005.
- To date, payments totaling \$225.5 million have been made to existing facilities for generation from January 1998 through December 2005.
- ERFP rollover funds — those remaining after payments have been made and rolled over to the next payment cycle as available funds — total \$33.7 million.
- 378 facilities are registered as renewable suppliers, with 102 eligible for funding from the ERFP.

New Renewable Facilities Program (NRFP)

The NRFP fosters the development of new in-state renewable electricity generation facilities by providing financial support. The program consists of two components:

1. Production incentives (cents per kWh payments for renewable energy generated) for proposed projects were allocated to the lowest bidders during three competitive solicitation processes, per SB 90. Production incentives are paid over a five-year period once a project begins electricity production.
 - Incentive payments totaling more than \$2.00 million were made during this quarter.
 - More than \$121 million is encumbered for participating auction winners.
 - Forty-seven projects are currently online and producing electricity, representing 488 megawatts (MW) of new renewable capacity.

- Since its inception in June 1998, the NRFP has paid a total of over \$60 million in production incentives to 46 new renewable generating facilities for 6,244 gigawatt-hours (GWh) of generation.
 - Funding Award Agreement REN-01-077 (Mesquite Lake Resource Recovery Facility) was cancelled at the request of the company, Chateau Energy. They advised that they were unable to locate a viable tire-gasification process.
2. Production incentives, referred to as Supplemental Energy Payments (SEPs), are provided to cover above-market costs of meeting the RPS, subject to certain cost constraints. If an eligible facility secures a power purchase agreement with a retail seller through a competitive solicitation, it may apply for SEPs.
- To date, no contracts have been eligible for supplemental energy payments.

Emerging Renewables Program (ERP)

The ERP provides consumers of electricity in investor-owned utility service territories with a rebate incentive to offset the cost of purchasing and installing new renewable energy systems at their homes and businesses. Eligible technologies are solar photovoltaic, small wind, fuel cells using renewable fuels, and solar thermal electric. Incentive payments are based on the rated electrical capacity of the system.

- During this quarter, payments totaling \$18.1 million were made for 1,326 installed systems, representing over 6 MW of capacity.
- During the first quarter, approximately 1,043 reservation requests were received representing about \$17.7 million in rebates and 6.3 MW of capacity.
- Payments to date total \$253 million for 17,126 systems, representing approximately 71 MW of distributed generation capacity.
- Funds encumbered for 4,608 systems total \$73.9 million, representing 25.5 MW of capacity. Because the ERP can encumber funds that will be collected through 2006, and \$60 million from 2007 through 2011 (authorized by Assembly Bill 135 [Reyes], Chapter 867, Statutes of 2004), a total of over \$35 million remains available for rebates.
- Updated public information concerning the ERP continued to be made available on the Energy Commission's website.

- Pilot Performance-Based Incentive Program (PBI)

This pilot program began in January 2005 as a possible long-term option for building the PV market in CA. With a budget of \$10 million, the program offers a rebate level of \$0.50 per kWh based on the energy production of the installed solar PV system. The initial reservation period is one year to install the PV system. Quarterly performance payments are made over a three-year period.

- The PBI received 12 applications during the quarter representing potentially \$2.68 million in reserved funds and over 1,040 kW of capacity.
- As of March 31, 2006 funds encumbered for 29 applications represent \$6.4 million and 2 MW of capacity. A total of \$13,130 had been paid on 2 systems.

- Affordable Housing Program

Solar PV systems installed on affordable housing projects and meeting defined criteria are offered rebates 25 percent higher than the standard ERP rebate, not to exceed 75 percent of the system cost.

- During this quarter, payments of \$907,233 were made to 94 affordable housing projects.
- 133 projects are pending completion for 607 kW of capacity.
- A total of \$1.94 million has been paid for 189 completed projects representing 414 kW of generating capacity as of December 31, 2005

- **Solar Schools Program**

In May 2004, the Solar Schools Program offered \$4.5 million in incentives to eligible public and charter schools for the installation of PV systems. Thirty schools were selected to receive the higher rebate – participants receive double the current ERP rebate – and awardees claim their rebate when their PV system is fully installed and operational. By June 30, 2004, the Solar Schools Program closed after all funds were awarded. The program is funded equally by the Energy Commission's Emerging Renewables Program (\$2.25 million) and the California Attorney General's Alternative Energy Retrofit Account (\$2.25 million).

- During this quarter, the program paid \$1.3 million to 9 schools resulting in more than 200 kW of installed solar capacity.
- As of March 31, 2006, 20 schools have completed their PV projects with an additional 9 schools scheduled for completion by the end of 2006.
- Payments at the end of the quarter total \$2.4 million for approximately 391 kW of solar capacity.

- **California Solar Initiative (CSI) / New Solar Homes Partnership**

The CSI is a \$2.9 billion solar incentive program to be jointly administered by the CPUC and Energy Commission from 2007 through 2016. The CPUC is responsible for providing \$2.5 billion in incentives to the commercial and existing residential markets and the Energy Commission will encourage solar installations in the residential new construction market by providing approximately \$350 million in incentives. The Energy Commission has named its portion of the CSI the New Solar Homes Partnership. The CSI will replace the solar components of both the Energy Commission's ERP and the CPUC's Self-Generation Incentive Program.

- On January 12, 2006 the CPUC issued Decision 06-01-024 directing CPUC staff and the IOUs, in collaboration with Energy Commission staff, to develop the CSI during 2006. Energy Commission staff provided supporting information, drafts, and comments on material used in preparation of the Decision.
- A CPUC workshop was held on March 16, 2006, to gather information on performance-based incentives (PBI). Supporting documents were provided by Energy Commission staff in addition to a presentation on the current status of its Pilot PBI Program.
- A CPUC Prehearing Conference was held on March 23, 2006, to define the scope and timing of a new rulemaking proceeding for the CSI. The Energy Commission is collaborating with the CPUC on the rulemaking.
- In support of the New Solar Homes Partnership, a work authorization for \$159,806 was developed under the REP's technical support contract with KEMA to undertake outreach, PV technical analyses, and economic analysis.

Consumer Education Program

This program awards grants and contracts to increase public awareness of renewable energy and its benefits, and to help build a consumer market for renewable energy and small-scale emerging renewable technologies. Consumer Education funds are also used for tracking and verifying renewable energy purchases under the RPS (WREGIS).

- A grant agreement for \$50,000 was developed with the Rarus Institute for the Solar Decathlon 2005 project. The Solar Decathlon was a competition among 18 colleges and universities from around the globe, featuring team-designed and built solar homes, and held on the National Mall in Washington, D.C. in October 2005. The Rarus Institute was tasked with developing the educational element of the project – a video and book. A draft layout of the book was received in March and included a cover design, pictures, contestants, background of the Solar Decathlon and its scoring criteria. No payments were made to the Rarus Institute this quarter.

- The REP's technical support contractor provided staff with a draft PV Installation Guide which will provide the basis for a similar guide to be developed under the CSI.
- Consumer Education Program payments during this quarter consisted of the following:
 - \$26,009 for consumer education activities
 - \$52,518 for WREGIS activities
- Consumer Education disbursements since the beginning of the program total over \$5.3 million.